Supreme Court, U. S.
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MICHAEL RODAK, JR., CLERK

75-743

IN THE UNITED STATES SUPREME COURT

ROBERT H. HIEGER
and
ROBERT H. ELLIOTT
Plaintiffs

v.

Ford Motor Company
Defendant

PETITION FOR WRIT OF CERTIORARI

From decision of the Sixth Circuit Court of Appeals,
June 3, and July 24, 1975
74-2070 and 74-2071
and in part the decision of the United States District Court
for the Eastern District of Michigan, Southern Division,
May 1, 1975

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and
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Plaintiffs – In pro per

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STATUTES

28 U.S.C.A. 1338 (a) The district courts shall have original jurisdiction of any civil action arising under any Act of Congress relating to patents, plant variety protection copyrights and trade marks. Such jurisdiction shall be exclusive of the courts of the states in patent plant variety protection and copyright cases. Par. 1, Page 3

28 U.S.C.A. 1400 (b) Any civil action for patent infringement may be brought in the judicial district where the defendant resides, or where the defendant has committed acts of infringement and has a regular and established place of business. Par. 1, Page 3

35 U.S.C.A. 282 Par. 2, Page 3

IN THE SUPREME COURT

Now comes Robert H. Hieger and Robert H. Elliott, Plaintiffs in the above identified, who now request this Honorable Court to invoke its supervisory authority, by the granting of this petition, and to affirm the District Courts findings as to the validity of the Hieger patent, while reversing the District Court and the Sixth Circuit Court of Appeals on their respective findings of non-infringement of the Hieger patent by the Ford Motor Company.

The Plaintiff Hieger did demonstrate his proposed clip to the Ford Motor Company on March 30, 1959, after which the Ford Motor Company purchased (300) samples for testing, both events occurring prior to the time the Plaintiff Elliott prepared and filed the application for patent in the United States Patent Office. Since this time, Ford has manufactured or has manufactured for it, three (3) different forms of retainers. The first structure was covered by the Original Complaint in Civil Action 32,949, on June 16, 1969 and the second accused structure was covered by an Amended Complaint per Court Order of April 5, 1971, while the third accused structure was covered by a Supplemental Complaint per Court Order on June 13, 1972. Thus, each of the three (3) retainer structures used by Ford are included in the litigation, not one of the Ford structures is covered by a patent.

The grounds upon which this petition is made are predicated on the Patent Laws of the United States of America, over which this Honorable Court has jurisdiction, since the District Court and the Sixth Circuit Court of Appeals have rendered a decision which is not only in conflict with other decisions in the Sixth Circuit, but decisions in other circuits, as well as decisions of the Supreme Court. The Court of Appeals having departed from the usual and accepted course of judicial proceedings and sanctioned such a departure by a lower court now requires the exercise of this Honorable Court's power of supervision.

In the above, the most recent decision of the Sixth Circuit Court of Appeals occurred on June 3, 1975, with the Petition for Rehearing having been denied on July 24, 1975.

The statutory provisions believed to confer jurisdiction to review the judgment stem from Title 28 of the Judicial Code of the United States of America, more specifically Section 1338 (a) and Section 1400 (b), as well as Title 35, U. S. C. A. 282, which states:

> "A patent shall be presumed valid. Each claim of a patent (whether in independent or dependent form) shall be presumed valid independently of the validity of the other claims; dependent claims shall be presumed valid even though dependent upon an invalid claim. The burden of establishing invalidity of a patent or any claim thereof shall rest on the party asserting it." (emphasis added)

During the trial, substantial evidence was presented by Ford, along with lengthy testimony, in an attempt to assert invalidity of the Hieger United States Patent Number 3,126,900. Ford failed to support the burden of proof required by law (35 U.S.C.A. 282) and the United States District Court for the Eastern District of Michigan, Southern Division, upheld the statute, by pronouncing the Hieger Patent valid.

The Sixth Circuit Court of Appeals, in its decision sets forth:

> "The findings of the District Court reflect only a limited inquiry into the factual basis of the issues. The adjudication on the issues appears to be based entirely on the statutory presumption of validity, 35 U.S.C.A. 282. In our opinion this finding is an inadequate basis for a determination of validity, and the judgment of the District Court must be vacated insofar as the patent is declared valid."

Ford, failing in its burden of proof to sustain invalidity, after substantial evidence and testimony, the statutory presumption of validity must stand, as found by the District Court.

In the Apex Electrical Manufacturing Company v. Maytag Company et al 122 F2d 182-191, we find:

> "12. Courts . . . Where district court after hearing witnesses, found facts specifically based on substan-

tial evidence, Circuit Court of Appeals was not permitted to find differently. Federal Rules Civil Procedure, Rule 52, 28 U.S.A. following section 723c."

In view of this logic, as applied by the Court of Appeals in connection with the inadequate inquiry of the District Court into "the factual basis of the issues" in determining validity, that same impartial logic can be applied to the findings of the District Court in connection with "the factual basis of the issues" in the determination of non-infringement by Ford.

It is therefore respectfully submitted that the Hieger patented clip has but two (2) structural elements, (a) a U-shaped body and (b) two depending portions, with arcuate portions intermediate the U-shaped body (a) and each of the two depending portions (b). This is also true of the three accused Ford retainers, each of which has both elements (a) and (b).

The District Court finding, paragraph 26. (c) and Appeals Court finding, paragraph (c), page 2, are substantial duplicates and read as follows:

> "26. (c) The accused retainers omit a structural element of the claim because they do not have legs depending from the central portion of the U-shaped clip but, in contrast are provided with hooked ends for gripping engagement with the float shaft." (emphasis added)

If in fact there has been an omission of a structural element from the Ford accused structure, what is it? Paragraph 26. (c) contradicts itself, by the substitution of an element "hooked ends" which must be the same as the patented structure or its equivalent. This is true because the omission of element (a) or (b) in the patented structure or either of the three accused Ford structures would render the structures useless and inoperable. Again I ask, what element has been omitted from the Ford structure? It would therefore appear that the Court has not sufficiently inquired into "the factual basis of the issues" in connection with the finding of a non-existent omission, so as to necessitate the supervisory authority of this Honorable Court.

The same reasoning is applicable to the District Court finding in paragraph 26. (f) and the Appeals Court finding on page 2, paragraph (f) wherein it states:

> "26. (f) None of the accused Ford retainers is an equivalent of the patented Hieger Clip."

However, the District Court failed to determine the meaning of the words "legs" or "hooks" as did the Appeals Court. The Plaintiffs brought this to the attention of the Appeals Court, through the use of "Webster's Dictionary" definition, which appears to ascribe the same or equivalent meaning to both words. Ford then brought on a motion to "strike", which was not acted upon by the Court of Appeals, nor was it considered. In Jamesbury Corporation v. Worcester Valve Company Inc., v. E. E. Bliss Company, 443 F2d 205, we find the following:

> "7. Contracts
>
> To select appropriate definition of expression used in contract, a court should first attempt to discover from extrinsic evidence the surrounding circumstances which caused the expression to be used and if the parties ascribe different meanings, the court must decide whose meaning governs and what that meaning is."

The Court made no such inquiry and thus requires the supervisory authority of this Honorable Court to make or order such inquiry.

Additionally, the District Court or the Court of Appeals made no inquiry into the substance of either of the three claims of the Hieger patent. To administer justice, it is incumbent upon the Court that such inquiry be made. As stated on page 2 of the Appeals Court decision,

> "None of the accused Ford retainers infringe any of the claims of the Hieger patent either literally or in substance."

The claims of a patent are not couched in a vacuum, and it is interesting to note a relatively recent case in the Sixth Circuit, Court of Appeals reported on October 16, 1974, identified as Olympic Fastning Systems, Inc., v. Textron, Inc., 504 F2d, where we find:

9. Although interpretation of the claim language of a patent involves legal rules of construction, question of whether an allegedly infringing device is within the language of the claim is a question of fact to which the clearly erroneous rule applies. Fed. Rules Civil Proc. rule 52 (a), 28 U.S.C.A.

10. If an express limitation in a patent claim does not pertain to the inventive step but rather to its mere environment, it does not preclude reliance on the doctrine of equivalents to protect against infringement.

5. If his claim is broad enough, an inventor may claim infringement if another uses the principal and appropriates the substance of his invention.

(5 — page 616, continuing)

(5) The decision on this sub-issue is controlled by this court's holding in Maxon v. Maxon Construction Co., 395 F2d 330 - 335 (1968), that if his claim is broad enough an inventor may claim infringement "if another uses the principal and appropriates the substance of his invention." There the court held that one function claimed for gates on the body of a dump truck was performed alike by gates on the patent and the accused, though the gates were placed at different locations on the two. (emphasis added)

It is interesting to note that in Maxon v. Maxon Construction Co., 395 F2d pages 334 - 335, it is stated:

(4) There is one function common to the gates of both bodies — that is, during transit both gates operated so as to swing from and toward a closed position blocking the discharge of the body contents over the upper edge of the slanting bottom wall. This is all that Claim 15 required. It is immaterial that the company's gate had another function such as a chute. Aluminum Corp. of America v. Sperry Products, Inc., 285 F2d 911-924 (6th Cir. 1960)

(5) While the specification and drawings of Maxon's patent do describe and illustrate a rear dump body, Claim 15 contains no such limitation. The claims of patent are not necessarily limited to the embodiment depicted in the patent. Arnold Pipe Rentals v. Engineering Enterprises, Inc.

350 F2d 885 (5th Cir. 1965); Metal Cutting Tool Service v. National Tool Co., 103 F2d 581-583 (6th Cir. 1939) (emphasis added)

(6, 7) A patentee is only required to describe the best method of practicing his invention, but he is not confined to that. If his claim is broad enough, he may claim infringement "if another uses the principal and appropriates the substance of his invention." Grant Paper Box Co. v. Russell Box Co., 154 F2d 729, 731 (1st Cir. 1946) His claims are the measure of his invention. (emphasis added)

(8, 9) To take Maxon's concept and provide for dumping to the side of the vehicle rather than the rear did not relieve the company of its obligation to pay royalties. One may not avoid infringement by the change in position of an operable element when the operation and results achieved by the accused device are essentially the same as the patented device. E. H. Bardes Range and Foundry v. American Engineering Co., 109 F2d 696 (6th Cir 1940) (emphasis added)

(11) Be that as it may, it does not disprove infringement. As well stated by the Supreme Court in Temco Elec. Motor Co. v. Apco Mfg., 275 U.S. 319-328, 48 S. Ct. 170-173, 72 L. Ed. 298 (1928):

> "It is well established that an improver cannot appropriate the basic patent of another and that the improver without a license is an infringer, and may be sued as such."

In 90 F2d 727, it is stated that each claim of a patent constitutes a separate grant of monopoly and each must be considered by itself both with respect to validity and infringement. 294 U.S. 477.

In the Seventh Circuit, Apex Electrical Mfg. Co. v. Maytag Co. et al (2 cases), we find: 122 F2d 182-191

> (3-5) Patents are not limited to the structure described and shown, but the invention may be embodied in various forms. A transposition or rearrangement of the parts as set forth in a patent is an embodiment of the patented invention and it does not avoid infringement unless form, location or sequence is essential to the result or the novelty

of the claim. Continental Paper Bag Co. v. Eastern Paper Bag Co., supra; Simplex Co. v. Star Co., 7 Cir. 37 F2d 491. Infringement is not avoided by combining two elements of a claim in one part. Bundy Mfg. Co. v. Detroit Co., 6 Cir., 94 F. 524; Dowagiac Co. v. Brennan & Co., 6 Cir., 127 F. 143

Patentee believes that there is substantial identity between each of the accused Ford structures and the Hieger patented structure, that the Ford structures do not omit a structural element, but to the contrary, add one, which does not avoid infringement, that the Ford "hooks" are the equivalent of the Hieger patented "legs", "legs" and "hooks" being one and the same thing, and in view of the patent disclosure, each of the Ford accused structures read on Claims 1 and 2 of the Hieger patent, while C5AF and D2AF each literally read on Claim 3 of the Hieger patent.

The commercial success enjoyed by Ford who appropriated the teachings of the Hieger patent should have been enjoyed by the patentee who holds the patent. Ford has no patents on this subject matter. It must also be remembered that the District Court did not have benefit of the trial transcripts when the District Court decision was handed down, trial transcripts were not complete until August 25, 1974, some sixteen weeks after the trial decision.

To prevent a miscarriage of justice, it is imperative that this Honorable Court invoke its supervisory authority in the granting of this petition and thereafter hold the Hieger patent valid and infringed by Ford, in accordance with the law and of other decisions of this Honorable Court as well as in the Sixth Circuit. Such action is respectfully requested.

Respectfully submitted,
Robert H. Elliott, Plaintiff
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Southfield, Michigan 48075
Area Code 313 – 355-1288

Robert H. Elliott

October 17, 1975
40 Copies
Writ of Certiorari
Court of Appeals Decision
Denial of Re-hearing
District Court Decision

Nos. 74-2070-71

UNITED STATES COURT OF APPEALS

FOR THE SIXTH CIRCUIT

ROBERT H. HIEGER and ROBERT H. ELLIOTT,
Plaintiffs-Appellants,
v.
FORD MOTOR COMPANY,
Defendant-Appellee.

APPEAL from the United States District Court for the Eastern District of Michigan.

Decided and Filed June 3, 1975.

Before PHILLIPS, Chief Judge, and EDWARDS and MILLER, Circuit Judges.

PHILLIPS, Chief Judge. U. S. Patent No. 3,026,900 was issued to Robert H. Hieger on March 27, 1962. This action was filed by the owners of the patent against Ford Motor Company, charging infringement. Ford denied infringement and also challenged the validity of the patent. In comprehensive findings of fact the District Court found non-infringement. The patent was adjudged to be valid in the following single sentence: "Based on the presumption of validity, the patent is valid."

The owners of the patent appeal from the finding of non-infringement. Ford cross-appeals, contending that the District Court did not inquire fully into the validity of the patent on the issues of anticipation and obviousness, and that there should be no adjudication of validity in this situation. Ford

contends that the judgment of the District Court on the issue of validity should be reversed.

We affirm the finding of non-infringement and vacate the judgment as to the validity of the patent.

The Hieger patent discloses a bent spring wire clip used in the assembly of automobile carburetors. The specific shape of the clip and the method of installation which is made possible by the clip are the two allegedly novel features of the invention. The accused devices are bent spring wire clips and are used by Ford Motor Company to join the same carburetor components as in Hieger. The District Court carefully compared the limits of the Hieger claims with the shape and method of installation of the accused devices, and made the following findings:

> None of the accused Ford retainers infringe any of the claims of the Hieger patent either literally or in substance.
>
> (a) None of the accused Ford retainers comes within the literal language of the Hieger patent claims.
>
> (b) There is no real identity of means, operation and result between the accused retainers and the retainer defined by the Hieger patent claims.
>
> (c) The accused retainers omit a structural element of the claim because they do not have legs depending from the central portion of a U-shaped clip but, in contrast, are provided with hooked ends for gripping engagement with the float shaft.
>
> (d) The accused retainers do not respond to the functional limitations of the claims which serve to define a structure having the claimed function. The accused retainers are not so "arranged and dimensioned" that they are installed by defendant in a carburetor float bowl by first positioning the back of the retainer in the groove of the valve seat and then by pivoting the retainer about said valve seat to cause the free ends of the retainer to move over the shaft grooves into holding position as required by the claims. As a matter of practical and acceptable assembly line and service procedure, the accused Ford retainers are incapable of being installed in carburetor float bowls in the manner defined by the functional limitations of the Hieger patent claims.
>
> (e) While the accused retainers, like the patented Hieger clip and the prior art Ford retainers, accomplish a similar result, namely, holding down the float shaft and locking the float in the float bowl, the accused retainers do not infringe because they accomplish that old hold-down function by a substantially different means, by a substantially different mode of operation and by a substantially different method of assembly and installation than the patented Hieger clip.
>
> (f) None of the accused Ford retainers is an equivalent of the patented Hieger clip.

Our review of the record convinces us that these findings are not clearly erroneous. Fed. R. Civ. P. 52(a), but to the contrary are supported by substantial evidence.

Ford pleaded the defense of invalidity in its answer to Hieger's complaint, on the issues of anticipation, 35 U.S.C. § 102, obviousness, 35 U.S.C. § 103 and vagueness, 35 U.S.C. § 112. The findings of the District Court reflect only a limited inquiry into the factual basis of these issues. The adjudication on this issue appears to be based entirely on the statutory presumption of validity. 35 U.S.C. § 282. In our opinion this finding is an inadequate basis for a determination of validity, and the judgment of the District Court must be vacated insofar as the patent is declared to be valid. Our action in no way impugns either the validity or invalidity of the patent. We simply vacate the express finding of validity. The effect of our opinion as to Ford's cross-appeal is to leave the question of the validity of the patent unadjudicated.

BEST COPY AVAILABLE

In an infringement action where the validity of a patent is made an issue, the District Court should make a full inquiry and adequate findings of fact on the issue of validity, even though there is an ultimate finding of non-infringement. In *Sinclair & Carroll Co.* v. *Interchemical Corp.*, 325 U.S. 327, 330 (1945), the Supreme Court said:

> There has been a tendency among the lower federal courts in infringement suits to dispose of them where possible on the ground of non-infringement without going into the question of validity of the patent. *Irvin* v. *Buick Motor Co.*, 88 F. 2d 947, 951; *Aero Spark Plug Co.* v. *B. G. Corp.*, 130 F. 2d 290; *Franklin* v. *Masonite Corp.*, 132 F. 2d 800. It has come to be recognized, however, that of the two questions, validity has the greater public importance, *Cover* v. *Schwartz*, 133 F. 2d 541, and the District Court in this case followed what will usually be the better practice by inquiring fully into the validity of this patent.

It is now well recognized that an invalid patent is a blight on "the important public interest in permitting full and free competition in the use of ideas which are in reality a part of the public domain," *Lear, Inc.* v. *Adkins*, 395 U.S. 653, 670 (1969), and should be expunged whenever the issue can be reached. In fairness to the public and the patentee, a full inquiry is required. For example, when a question of obviousness is raised, as in the present case, the District Court should make the express factual findings as required by *Graham* v. *John Deere Co.*, 383 U.S. 1, 17 (1966), and reiterated by this court in *Kolene Corp.* v. *Motor City Metal Treating, Inc.*, 440 F.2d 77, 81 (6th Cir.), *cert. denied*, 404 U.S. 886 (1971), before proceeding to the conclusions of law. Although the District Court in the present case did determine to some degree "the scope and content of the prior art," it did not resolve the "differences between the prior art and the claims at issue" or "the level of ordinary skill in the pertinent art." These are "basic factual inquiries," *Graham, supra*,

383 U.S. at 17, that must be considered prior to making an adjudication of obviousness or non-obviousness. When specific grounds of attack on the validity of a patent are asserted, findings of fact on these issues should be made by the District Court. In such a situation, an adjudication of validity should not be made on the sole ground of the statutory presumption, without the necessary underlying findings of fact.

In other situations we might remand the case to the District Court with directions to supplement the deficient findings of fact. Under the facts and circumstances of the present case, however, we conclude that a remand is not necessary. This record seems to indicate that the Hieger patent has experienced little or no commercial success. Hence, a lengthy trial on the issues of validity of this patent may not be in the public interest. It is sufficient to vacate the finding of validity. We leave the issue of the validity of the patent in the same status as if this litigation had never been filed.

The judgment of the District Court is affirmed except as to the adjudication of the validity of the patent. The judgment of validity is vacated.

In its cross-appeal Ford contends that the District Court erred in not awarding costs to it. We decline to award costs in the District Court. Costs in the Court of Appeals are taxed against appellants.

BEST COPY AVAILABLE

Nos. 74-2070-71

UNITED STATES COURT OF APPEALS

FOR THE SIXTH CIRCUIT

ROBERT H. HIEGER and
ROBERT H. ELLIOTT,
Plaintiffs-Appellants,
Cross-Appelles,

and

FORD MOTOR COMPANY,
Defendant-Appellee,
Cross-Appellant.

ORDER

Before PHILLIPS, Chief Judge, and EDWARDS and MILLER, Circuit Judges.

Upon consideration, it is ORDERED that the petition for rehearing be and hereby is denied.

Entered by order of the court.
John P. Hehman, Clerk

By _____
GRACE KELLER
Chief Deputy

UNITED STATES DISTRICT COURT
EASTERN DISTRICT OF MICHIGAN
SOUTHERN DIVISION

ROBERT H. HIEGER and
ROBERT H. ELLIOTT,
Plaintiffs,

v.

FORD MOTOR COMPANY,
Defendant

Civil Action
No. 32949

JUDGEMENT

The issues raised in the complaint came on for trail before the court, Honorable Charles W. Joiner, United States District Judge, presiding, and the issues having been duly tried and a decision having been duly rendered finding the plaintiffs' patent to be valid but that the defendant did not infringe plaintiffs' patent,

IT IS ORDERED AND ADJUDGED that the plaintiffs take nothing, and that the action be dismissed on the merits with prejudice.

Dated at Detroit, Michigan, this 1st day of May, 1974.
Approved as to form:

_____
HENRY R. HANSSEN
Clerk of the Court

_____

By _____
Deputy Clerk

UNITED STATES DISTRICT COURT
EASTERN DISTRICT OF MICHIGAN
SOUTHERN DIVISION

ROBERT H. HIEGER and
ROBERT H. ELLIOTT,
Plaintiffs,

v.

FORD MOTOR COMPANY,
Defendant

Civil Action
No. 32949

FINDINGS OF FACT AND CONCLUSIONS OF LAW

Findings of Fact

1. United States Letters Patent No. 3,026,900 in suit entitled "Carburetor Float Clip" was issued to plaintiff Robert H. Hieger on March 27, 1962 on an application, Serial No. 812,427, filed May 11, 1959. On February 3, 1969, plaintiff Hieger assigned to plaintiff Elliott a fifty percent (50%) interest in the alleged Hieger invention and the Hieger patent. Plaintiffs Hieger and Elliott are presently the owners of the entire right, title and interest in and to said Hieger patent with all rights to damages for past infringement of said patent.

2. Defendant, Ford Motor Company, is a corporation of Delaware, havings its principal offices and place of business at Dearborn, Michigan, within the Eastern District of Michigan, Southern Division, within the jurisdiction of this court.

3. The Hieger patent No. 3,026,900 in suit discloses a piece of spring wire bent into a specific shape to provide a specific method of installation in a carburetor bowl for maintaining the float shaft in position in vertical grooves in the side walls of a carburetor float bowl. The float is pivoted or hinged on the shaft and serves to maintain the desired level of gasoline in the bowl during engine operation by controlling the gasoline inflow through an intake valve.

4. The method of forming the clip into the specifically claimed shape for its specifically claimed method of installation is described in the patent as follows (Col. 2, lines 43-52). A length of spring wire is first formed into a flat U-shape with the straight sides of the U being parallel. Then, as shown in Fig. 2 of the patent drawings, the straight sides are bent downwardly to form depending legs 16 and 18 connected to the rounded portion of the U by radial portions or bends 20 and 22. The depending legs 16 and 18 are of such length as to extend over and beyond the axis of the float shaft 30 when the clip is in the phantom position shown in Fig. 4 of the drawings with the arcuate back of the U positioned in the valve seat groove (Col. 2, lines 67-72). The patent explains that by having the depending legs extend over and beyond the shaft axis "the possibility of the resilient retainer clip of being dropped into the carburetor float bowl during assembly" is eliminated (Col. 2, line 72 to Col. 3, line 2).

5. The Hieger clip, as the patent shows, is not installed in the carburetor float bowl until after the float and float shaft have been positioned in the bowl with the shaft in the aligned grooves of the bowl and after the valve seat assembly has been positioned in the bowl. As to the specific method of installation of the clip, the Hieger patent is explicit and describes only one method (Col. 2, line 63 to Col. 3, line 2). *First,* the curved portion 14 of the U is inserted into the circular groove 48 of the valve seat 46, the clip assuming the phantom position shown by the dashed lines in Fig. 4 with the free ends of the legs extending into, over and beyond spaced grooves 24 and 26 of the float shaft 30. In this position, the clip is supported at both its front free ends by the shaft and at its back curved portion in the valve seat groove so that it cannot be readily dislodged to fall into the bowl. *Secondly,* the clip is then rotated about the valve seat groove so that the long legs 16 and 18 slide over and downwardly in the grooves on top of the shaft until the clip snaps

into position with the bends 20 and 22 in the shaft grooves as shown by the solid lines in Fig. 4.

6. The Hieger patent does not disclose or suggest that forms of clips other than shown and described in the patent or that other methods of installation in a carburetor float bowl may be provided within the scope of Hieger's alleged invention. The Hieger patent claims are limited to only the one form of clip and the one method of installation described in the patent which is the direct result of the specific shape of the clip.

7. The alleged novelty of Hieger's improvement, if any, lies in his specific form of clip and its particular method of installation dictated by the specific form of clip. The remainder of the carburetor construction and elements shown in the Hieger drawings, described in the Hieger specification and recited in the patent claims, such as the float bowl, aligned grooves in the side wall of the float bowl, a float member, a float shaft, a pair of spaced grooves on the float shaft intermediate the ends thereof, a pivotal arm on said float, the edges of said arm positioned between said spaced grooves, a needle valve and seat assembly in said float bowl, and a groove in the outside diameter of said needle valve and seat assembly, were all old in the prior art and had been used by Ford with its prior art clip as early as the year 1957 prior to Hieger. This was conceded by Hieger in his deposition.

8. (a) All of the claims of the Hieger patent were limited during the prosecution of the Hieger application in the United States Patent Office to the specific form of clip and to the specific method of installation of the clip shown and described in the drawings and description. The file wrapper of the Hieger patent shows that the United States Patent Office rejected all of the claims which Hieger presented in his application until the limitations defining the specific shape of the clip and Hieger's particular method of installation were inserted into the claims to secure allowance. These limitations are essential requirements of the claims.

(b) The nine claims originally presented in the Hieger application as filed were of broad scope and did not contain any limitation defining the Hieger method of instal-

lation of the clip in the carburetor bowl. Upon rejection by the Examiner, Hieger cancelled all the original claims and substituted new Claims 10 and 11. These claims likewise were not restricted to Hieger's specific method of installation and again were rejected by the Patent Office. In response, Hieger amended Claims 10 and 11 and added new Claim 12, all of which the Patent Office again rejected but suggesting at the same time that claims would be allowable if amended by changing the claims to read:

> ". . . the clip being U-shaped, including a central portion and legs positioned in generally parallel relationship and depending angularly from the central portion, the central portion and legs being so arranged and dimensioned so that when the central portion is received in the groove in said needle valve and seat assembly the clip can be pivoted about said valve and seat assembly without being obstructed thereby, etc."

Following the Patent Office's suggestion, Hieger cancelled Claims 10, 11 and 12 and substituted Claims 13-15 which became Claims 1, 2 and 3 of the Hieger patent. Claims 1 and 2 of the patent were written with precisely the same wording suggested by the Examiner. Claim 3 contained similar but more detailed wording also defining the specific Hieger method of installation which his specific form of clip fostered. All claims, rewritten in accordance with the Examiner's suggestion, were than allowed.

9. The Hieger patent concedes that the float shaft retainer or clip shown in Fig. 1 of the Hieger patent is prior art to the Hieger clip. This prior art clip, which was used by defendant Ford for approximately eight years from 1957 to 1965, was generally arcuate in shape to fit into the valve seat groove and had upstanding hook-members at its free ends for engagement in the float shaft grooves. This prior art clip came in two sizes to fit two different diameter needle valve seats of Ford carburetors.

10. The prior art Ford retainer was installed in the float bowls of carburetors on Ford's assembly line in the following manner. First, the rounded portion of the clip

was positioned in the groove of the valve seat to produce a subassembly and then the valve seat with the clip thereon was screwed down into position in the bowl. Then, by the use of a curved, needle-nose pliers, the upstanding hooked-ends of the clip were consecutively gripped and moved into securing position in the grooves of the float shaft. When so installed, this prior art retainer held down the float shaft in properly operable position. The description in Column 2, lines 31-37, of the Hieger patent of the method of installation of Ford's prior art clip is completely in error. It is impossible to install the prior art clip by the sequential method there described.

11. During Ford's use and sale of the Ford prior art retainer from 1957 to 1965, inclusive, there were no complaints by Ford employees working on or supervising the carburetor assembly line as to any difficulty encountered in the installation of the retainer in the float bowl or its removal therefrom. Nor were there any complaints by Ford employees working on or supervising the carburetor assembly line or by employees of Ford's service and parts departments or by Ford dealers servicing customers' carburetors as to any failure of the prior art retainer to perform its intended function of maintaining the float shaft in the desired operable position. No problems were encountered on Ford's assembly line in installing the Ford prior art retainer in the carburetor float bowl, this being established by Ford's continued use of this form of retainer for eight years from 1957 to 1965 and by the testimony of workers on Ford's carburetor assembly line during that period.

12. With reference to the Ford prior art clip the Hieger patent states:

> Installation of this type clip was slow and costly. Frequently in production, several of these clips were tried before satisfactory results could be obtained. Since this prior art clip could be used only once, frustration ran high and scrap clips were many."
>
> (Col. 1, lines 38-42)
>
> • • •

> "Still another object of this invention is the provision of a carburetor shaft retainer clip which is more efficient, yet less expensive than those now in use."
>
> (Col. 1, lines 49-51)
>
> • • •
>
> "Because of the limited space in the float bowl area, this was a tedious, time-consuming operation. Frequently, several of these clips were used before satisfactory results were obtained."
>
> (Col. 2, lines 37-40)

The above statements in the Hieger patent are not supported by the trial evidence which shows that installation of the prior art Ford clip was not "slow and costly", that it did not happen "frequently in production" that several clips had to be tried before satisfacory results could be obtained, that scrap clips were not many, and there was no frustration on Ford's assembly line using the prior art clip. The evidence further shows that the Hieger clip was not more efficient and was not less expensive that the prior art Ford clip. Nor does the evidence show that installation of the Ford prior art clip was a tedious time-consuming operation.

13. On March 30, 1959, plaintiff Hieger submitted samples of his clip illustrated in Fig. 2 of his patent to defendant Ford and demonstrated them to Ford employees at Ford's Rawsonville plant where the Ford prior art retainer was successfully being installed on the carburetor assembly line without problems or difficulties. On April 10, 1959, Ford purchased three hundred (300) of such clips from Hieger for test purposes, but these clips were never tested or used on Ford's assembly line because Ford engineers were not interested in Hieger's form of clip.

14. Defendant has used and sold in the Eastern District of Michigan within the six-year period immediately preceding June 16, 1969, the date the complaint herein was filed, carburetor float shaft retainers identified by Part Nos. C5AF-9B546A and C6AF-9B546A incorporated in the carburetors

of cars made and sold by defendant. During the year 1969, defendant changed the form of its float shaft retainer and commenced the use and sale of float shaft retainers under Part No. D0AF-9B546A. Use of this latter form of retainer by defendant was continued into the year 1971. During the years 1971, 1972 and 1973, defendant used, and sold another form of float shaft retainer under Part No. D2AF-9B546A. These three forms of float shaft retainers which are charged by plaintiffs to infringe the three claims of the Hieger patent in suit are illustrated in defendant's drawings bearing the same parts numbers.

15. Defendant Ford, after Hieger's March, 1959, demonstration of his clip to Ford, continued to use the Ford prior art float shaft retainer for six more years until 1965 at which time Ford changed over to the accused retainer C5AF-9B546A. During that six-year period, Ford's prior art retainer was successfully used by Ford, successfully performed its shaft hold-down function and was successfully installed on Ford's assembly line without problems or difficulties. While Hieger had already submitted his clip to Ford at the time the accused Ford retainers were developed and first used by Ford, the accused retainers were designed independently by Ford's engineers. The Ford engineers did not copy nor were they influenced by Hieger's clip in designing the accused Ford retainers. The Ford retainers are different in structure, mode of operation and method of installation from the Hieger clip and do not constitute copies or imitations thereof.

16. In 1964, the Ford Product Engineering Department redesigned the float shaft retainer of its carburetors in order to eliminate the need for the two sizes of prior art retainers and to provide a new subassembly for ready handling on the assembly line. In assembling the Ford prior art retainer, the float shaft was inserted into the hinge loops of the float arm and this combination was then placed in position in the bowl. However, while being so placed in the bowl, there was no means for holding the shaft in the hinge loops and careful handling on the part of the operator was required to prevent the shaft from falling out which frequently happened. The upstanding hooked ends on the new accused C5AF

retainer were designed with reverse bends so that the retainer loosely gripped the float shaft in the grooves on each side of the float arm to prevent the shaft from dropping out. Thus, the C5AF retainer permitted a subassembly of the three elements, the float, the shaft and retainer, to be made at a station off the assembly line and placed in a parts bin and thereafter readily handled and placed in position in the carburetor bowl without disassembly of the parts or loss of the shaft. This subassembly provided by the accused retainer also facilitates disassembly of the float for service adjustment of the carburetor inasmuch as the float, shaft and retainer can be readily removed as a unit without danger of separation and loss of the parts. All the accused forms of Ford float shaft retainer clips are provided with hooked ends which loosely grip the float shaft and provide the subassembly procedure described above.

17. During the year 1968, the Product Engineering Department of Ford made a study to cure a blow-off pressure problem at the inlet needle of the carburetor by improving the geometry of the needle seating forces. This study resulted in a redesign of the valve structure and dimensions of the parts which in turn necessitated a redesign of the float shaft retainer. The float shaft pivot point was relocated by shortening the distance between the float shaft and the needle valve seat. This redesign resulted in Ford's accused retainer D0AF-9B546A. The accused D0AF retainer was used and sold by Ford during the years 1969, 1970 and 1971. The D0AF retainer was not as flexible as Ford's prior accused C6AF retainer.

18. The inlet valve seat body for the 1972 model Ford carburetors was redesigned by substituting a hexagonally shaped head for the rounded slotted head. This change of form permitted the valve seat body to be run down into seated position by a power socket wrench rather than a power screwdriver and facilitated carburetor assembly. This change in the head of the valve seat body necessitated changes in the form of the shaft retainer and resulted in the accused D2AF retainer. The back of the D2AF retainer was designed with a slight offset to accommodate a corner of the hexagonal contour of the valve seat body during installation. Also to

restore the flexibility of the C5AF and C6AF retainers, the right angular bends were restored.

19. All of the accused Ford retainers have been installed in the carburetor float bowl on Ford's assembly lines by the same sequential procedure from 1965 to the present date. In its shop manuals Ford recommends the same procedure when the retainer is installed in the repair and service of a Ford carburetor. This procedure is as follows:

(a) At a station off the Ford assembly line, a float shaft is first inserted through the hinge loops of the float arm and then the two hooked ends of the retainer are snapped into the spaced grooves of the shaft so as to loosely grip the shaft and prevent its disassembly from the float. This three-piece unit forms a subassembly which is placed in a storage bin and later made available to an operator on the moving assembly line.

(b) Then the valve seat body, with the needle valve in position therein, is run down to seated position in the bowl.

(c) Next, the partially assembled carburetor moves down the assembly line to the next station where the three-piece float subassembly as a unit is placed in position in the bowl with the end of the float shaft received within the vertical side slots in the side wall of the bowl. At the same time the back of the retainer assumes a position resting on top of the valve body.

(d) Then a notched tool is used to push down on the back of the retainer until it enters the valve seat groove. This is the final hold-down position where the retainer remains during carburetor operation.

20. The installation procedure of the accused retainers followed on Ford's assembly line and in service differs from and is the reverse of the installation procedure of the Hieger clip as described in the Hieger patent description and as required by the Hieger patent claims. According to the Hieger patent, the back curved portion of the Hieger clip is first placed in position in the valve seat groove with the depending legs extending forwardly and resting on the shaft

in the grooves, the ends of the legs extending over and beyond the shaft. Then the Hieger clip is pushed down into holding position by applying pressure simultaneously adjacent each of the bends above the depending legs. The accused Ford retainers are installed by an opposite procedure. The hooked ends of the accused retainers are secured to the float shaft as a first step in making the subassembly and then the back of the retainer is pushed down into the valve seat groove as the last step. Ford's installation procedure of the accused retainers is not the same as or equivalent of that required by Claims 1, 2 and 3 of the Hieger patent.

21. As a matter of assembly line and servicing procedure, it would be virtually impossible for a plurality of reasons to install any of the three forms of Ford's accused retainers according to the method required by the Hieger patent description and the Hieger claims – that is, by first placing the back of the accused retainer in the valve seat groove and then rotating the retainer in an attempt to cause the ends to hook over the shaft grooves in gripping engagement.

(a) One reason is that it is practically impossible to first position the back of the accused retainer in the valve seat groove as in Hieger's first step. The accused retainers are too small and there is insufficient room between the bowl wall and the valve body for the operator to insert her fingers in an attempt to reach the valve seat groove with the back of the retainer.

(b) A second reason that the accused retainers cannot be installed according to the claimed Hieger method is that the forward ends of the hooks of the accused retainers terminate well short of the shaft axis with the result that even if it were possible to first insert the back of an accused retainer down in the valve seat groove, there would be a great likelihood that it would fall down into the bowl, an undesirable happening which Hieger stated his clip avoided. A further result of the failure of the accused retainers to extend over and beyond the axis of the float shaft is that their hooked ends could not be positioned in the shaft groove merely by a rotational movement about the valve seat groove (as required by the patent claims) but would require the

use of a needle-nose pliers (such as used in the assembly of the prior art Ford retainer) to pull each hook with considerable effort beyond the shaft axis and around the groove.

(c) In addition, even if the back of an accused retainer could be successfully placed in the valve seat groove as a first step, it would not remain in the valve seat groove if an operator attempted to pull the hooked ends into gripping engagement in the shaft grooves by means of a pliers. Such a pulling action on one hooked end would cause the entire retainer to swing around the valve and pull out of the groove.

22. The clip of the Hieger patent is incapable of providing a subassembly of the shaft, float and retainer as do the accused Ford retainers and could not have been used on Ford's assembly line from 1965 to date in the same sequential installation procedure. If, after the float shaft is inserted in the hinge loops of the float arm, the Hieger retainer is positioned with the arcuate bends in the shaft grooves, the Hieger retainer would in all likelihood become separated from the shaft because it does not grip the shaft as do the hooked ends of the accused Ford retainers. The Hieger clip is incapable of performing one of the essential functions accomplished by the accused retainers.

23. The adoption and use of the accused retainers C5AF, C6AF, D0AF and D2AF by Ford did not have the effect of reducing the elapsed time required to assemble the valve seat housing, float, float shaft and retainer in the float bowls of Ford carburetors from the time previously required to assemble those parts using the Ford prior art retainer EDB-9795C. The time of such assembly was substantially the same using each form of retainer as shown by a comparison of Ford's assembly line time studies made during the period from 1958-1970 of the assembly line installation procedures using the prior art and accused retainers.

24. In the prior art Ford retainer EDB-9795C, the patented Hieger retainer and the accused Ford retainers C5AF, C6AF, D0AF and D2AF, the physical dimensions between the point or points on the body portion of the retainer where contact is made with the valve seat groove

and the two contact points on the arcuate portions of the retainer at which contact is made with the grooves in the float shaft is of slightly less dimension before installation in a carburetor than the actual dimension between the point or points of contact with the valve seat groove and the two grooves in the float shaft with which the arcuate portions come in contact.

25. The hold-down or shaft retaining forces exerted on the float shaft by the prior art Ford retainer EDB-9795C, by the patented Hieger retainer and by the accused Ford retainers C5AF, C6AF, D0AF and D2AF are all in the same general directions for each type of retainer and in the same general combination of directions. When each said retainer is installed in engagement with the float shaft, there is the same combination of three forces operating to maintain the float shaft in the proper pivotal position. With each retainer so installed, there is a rearward, downward and inward force exerted by the retainer between the float shaft and the point or points of contact between the retainer and the valve sat groove. The same hold-down forces exerted by the prior art Ford retainer, the Hieger retainer and the accused retainers are only in degree and not in kind. Each said retainer exerts similar forces operating on similar principles and achieving similar results.

26. None of the accused Ford retainers infringe any of the claims of the Hieger patent either literally or in substance.

(a) None of the accused Ford retainers comes within the literal language of the Hieger patent claims.

(b) There is no real identity of means, operation and result between the accused retainers and the retainer defined by the Hieger patent claims.

(c) The accused retainers omit a structural element of the claim because they do not have legs depending from the central portion of a U-shaped clip but, in contrast, are provided with hooked ends for gripping engagement with the float shaft.

(d) The accused retainers do not respond to the functional limitations of the claims which serve to define a structure having the claimed function. The accused retainers are not so "arranged and dimensioned" that they are installed by defendant in a carburetor float bowl by first positioning the back of the retainer in the groove of the valve seat and then by pivoting the retainer above said valve seat to cause the free ends of the retainer to move over the shaft grooves into holding position as required by the claims. As a matter of practical and acceptable assembly line and service procedure, the accused Ford retainers are incapable of being installed in carburetor float bowls in the manner defined by the functional limitations of the Hieger patent claims.

(e) While the accused retainers, like the patented Hieger clip and the prior art Ford retainers, accomplish a similar result, namely, holding down the float shaft and locking the float in the float bowl, the accused retainers do not infringe because they accomplish that old hold-down function by a substantially different means, by a substantially different mode of operation and by a substantially different method of assembly and installation than the patented Hieger clip.

(f) None of the accused Ford retainers is an equivalent of the patented Hieger clip.

27. The Ford prior art retainer, like the Hieger clip, was formed of spring wire and served to hold down the float shaft of a carburetor having the same associated carburetor elements with which the Hieger clip is used. When installed, the clip was tensioned between the valve seat groove and the float shaft, just as with the Hieger clip, so as to exert the same general combination of hold-down forces as in the Hieger clip. Also, the Ford prior art retainer was first positioned in the valve seat groove, as in Hieger, and then the spaced free ends were moved into shaft engaging and holding position in the grooves. In holding down the float shaft, the prior art Ford retainer functioned equally as well as the Hieger clip.

28. The Jackson Patent No. 1,057,431 shows in Figs. 1 to 5, inclusive, a wire clip having substantially the same

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shape and formed in substantially the same way as the Hieger clip. It is U-shaped, has depending legs (called "arms") disposed at an angle of less than 90° with respect to the U body portion and arcuate portions or bends connecting the body portion of the U and the legs. Jackson states:

> "This clip is first bent to form a U-shaped device having two parallel arms 8 connected by a bend 9. It is afterward bent intermediate the extremities of the arms 8, as shown at 10, whereby it is V-shaped. In applying the clip to the stud [valve seat], the arms 8 are caused to straddle the stud [valve seat] while their outer portions engage the plaster board [float shaft] on the opposite side from the stud. By virtue of the peculiar shape of these clips, they are caused to clamp the board to the stud as the clips are forced downwardly on the stud, since the farther the clip is moved downwardly, the tighter it clasps or clamps the two connected parts by virtue of the V-shaped construction of the clip as heretofore described." (Page 2, Col. 1, lines 5-21).

Although the two elements being retained by the Jackson clip are not the same as the valve seat body and shaft of the Hieger patent, the structure, function and mode of operation of the Jackson clip is similar to the Hieger clip. The Jackson patent, not cited by the Patent Office, is pertinent prior art to the Hieger patent because both patents are in the broad art of spring wire retaining clips.

29. Other pertinent prior art patents in the field of wire retaining clips are as follows:

(a) The Johnson Patent No. 1,342,504 shows a U-shaped clamping member with depending legs which is used with a paper file.

(b) The Monson Patent No. 1,742,717 shows in Fig. 6 a U-shaped clamp or clip formed of spring wire which serves to hold the glass of an automobile headlight in place.

(c) The Carew Patent No. 2,121,394 also discloses wire clips which serve to hold down a lid on the top of a container. The Carew clip is generally U-shaped with depending legs and is rotated to cause the legs to engage a circular edge of the container and thus hold the parts together under tension.

(d) The Falge Patent No. 2,647,984 discloses a spring wire clip that is generally U-shaped and provided with parallel legs which serves to secure the door frame of an automobile headlight to a casing.

(e) The Italian Patent No. 493,723 likewise shows a U-shaped wire clamping device having upstanding legs and which functions to secure a telegraph wire to an insulator.

30. Sales of the Hieger clip by Hieger and his company have been minimal and have been made for the most part along with elements of a carburetor repair kit. There has been little or no demand for Hieger's patented clip. Hieger has not had any clips made for his resale since 1963 and he still has thousands of clips on hand. The Hieger clip has not enjoyed any commercial success which can support any claim of non-obviousness.

31. At the time Hieger devised his clip, there was no long felt or unsolved need for such a clip. The Ford prior art retainer was being successfully installed and used in its carburetors. There were no complaints from Ford's assembly line or its service and repair group as to its construction, function or method of installation. Had there been such a long felt or unsolved need at Ford, it is unlikely that Ford would have continued to use its old style prior art clip for six more years after witnessing the Hieger clips' structure and method of installation.

32. There is no evidence that others in the carburetor art had made attempts to solve any alleged problems with the Ford prior art clip or to produce a wire clip in any other form. At the time Hieger made his alleged invention, he was the only one who made any attempt to devise a new form of retaining clip which would suit his own likes and dislikes. He testified that prior to the time he made the float clip of his

patent, he had not made any other type of float clip and in creating his patented clip that

> "I got mad one morning and I just went in and got a paper clip and bent one up the way I wanted it and it worked."

If any problem ever existed with Ford's prior art carburetor, at least from Hieger's standpoint, he succeeded in solving it readily on his first attempt. The lack of evidence that others had tried and failed indicates that no real problem ever existed on Ford's carburetor assembly line or in the area of carburetor service.

Conclusions of Law

1. The court has jurisdiction of the parties and the subject matter of the patent issues raised by the pleadings of the parties herein.

2. Defendant's accused carburetor float shaft retainers C5AF-9B546A, C6AF-9B546A, D0AF-9B546A and D2AF-9B546A do not and have not infringed Claims 1, 2 and 3 of the Hieger Patent No. 3,026,900 in suit.

3. Based on the presumption of validity, the patent is valid.

Dated: May 1, 1975

CHARLES W. JOINER
United States District Judge

Detroit, Michigan

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